

## REMARKS

Claims 60-86 are pending in this application. Claims 60-86 are canceled herein without prejudice. New claims 87-88 are added herein to replace claims 60-77, for clarity and to more particularly define the invention and are not narrowing. New claims 89 and 90 is added herein to recite methods of using the compositions of claims 87 and 88, which claims are believed to contain allowable subject matter, and applicants request examination of these method claims in this application as provided according to the rules of rejoinder as set forth in the MPEP in section 821.04. The specification is amended herein to correct two inadvertent typographical errors in the nucleotide sequence of mutants Ala2 and Leu presented in Table 4. A substitute Sequence Listing is provided herewith to include the nucleotide sequences of Table 4 that have not been provided in a Sequence Listing previously. Support for these amendments and new claims is found in the language of the original claims and throughout the specification, as set forth below. It is believed that no new matter is added by these amendments and new claims. Applicants respectfully request entry of these amendments and new claims and reconsideration and allowance of this application in light of these amendments and new claims and the following remarks.

### **I. Rejection under 35 U.S.C. § 112, second paragraph**

The Office Action states that claims 60-77 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter applicant regards as his invention. Specifically, the Office Action states that in claims 60-62, 66-68, and 72-74, recitations within parentheses are unclear and should be deleted, and that in claims 60, 67 and 73, the abbreviation "Rb" should be spelled out. The Office Action further states that in claims 61-62, 67-68 and 73-74, these dependent claims are unclear in the recitation of a nucleic acid of the independent claim further comprising a nucleotide sequence and in the recitation of sequences that appear to refer to the same domain but to specific mutant sequences. Finally, the Office Action states that in claims 60-77, the number of mutations is not specified and in claims 62, 68 and 72, "the AL1 promoter" lacks antecedent basis.

Claims 60-77 are canceled herein without prejudice, thereby rendering this rejection moot and applicants respectfully request its withdrawal.

## **II. Rejection under 35 U.S.C. § 112, first paragraph**

The Office Action states that claims 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76 and 77 rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Office Action states that the rejected matter is "a nucleotide sequence encoding a mutant AL1 protein, wherein said nucleotide sequence comprises a mutation" in a specified region and having a recited function, where the nucleic acid comprises a selected SEQ ID NO. and "further comprising a nucleotide sequence comprising a mutation" in a different region, where the SEQ ID NO. is selected from an additional group of SEQ ID NOs.

Claims 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76 and 77 are canceled herein without prejudice, thereby rendering this rejection moot and applicants respectfully request its withdrawal.

## **III. Rejection under 35 U.S.C. § 112, first paragraph**

The Office Action states that claims 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76 and 77 are rejected under 35 U.S.C. § 112, first paragraph, on the basis that the specification, while being enabling for the nucleotide sequences comprising an individual SEQ ID NO, allegedly does not reasonably provide enablement for multiple sequences further comprising an additional SEQ ID NO.

Claims 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76 and 77 are canceled herein without prejudice, thereby rendering this rejection moot and applicants respectfully request its withdrawal.

#### **IV. Amendment of Table 4 in the specification**

Table 4 on page 32 of the specification is amended herein to correct an inadvertent typographical error in the nucleotide sequence of mutants Ala2 and Leu. Applicants were in possession of the correct nucleotide sequences for these mutants prior to the filing date of this application and the errors in Table 4 were introduced inadvertently when the present specification was prepared. These errors only recently became known to applicants during the preparation of a continuation-in-part application claiming priority to the present application. In particular, it was noted that the nucleotide sequences in the present specification had not been included in the Sequence Listing filed with this application. When a Sequence Listing was prepared for the continuation-in-part application, these nucleotide sequences were added and applicants employed the translation function of the Sequence Listing software to translate these coding regions into their respective amino acid sequences. It was then noted that the nucleotide sequences for the mutants Ala2 and Leu could not be translated as presented in Table 4. Applicants were able to identify the error in coding sequence and corrected the sequence to produce a coding sequence that was translated properly. Thus, it is apparent that one of ordinary skill in the art would readily recognize the errors in the nucleotide sequences of mutants Ala2 and Leu in Table 4 and would readily determine what the correct sequence should be. The correct nucleotide sequence of the mutants Ala2 and Leu was known at the time this application was filed and the errors in Table 4 were introduced during preparation of the specification. In support of this assertion, applicants provide herewith a Declaration under 37 C.F.R. § 1.132 of Dr. Linda Hanley-Bowdoin providing evidence of possession of the correct nucleotide sequences for mutants Ala2 and Leu prior to the filing date of this application.

Also provided herewith is a substitute Sequence Listing providing each of the nucleotide sequences of Table 4, in addition to the 16 amino acid sequences previously set forth in the Sequence Listing. Applicants assert that no new matter is added by these amendments to Table 4 or in the substitute Sequence Listing and their entry into the present application is respectfully requested.

#### **V. New claims 87-88**

New claims 87 and 88 are presented herein to replace previously pending claims 60-77, for clarity in order to more particularly define the claimed invention. Support for these new claims is found in the language of the original claims and throughout the specification. Applicants also wish to point out that new claim 87 is directed to a nucleic acid comprising a nucleotide sequence encoding an amino acid sequence of various sequences identified in the Sequence Listing by SEQ ID NO. This is to correct an inadvertent error in these claims introduced at the time these claims were originally presented for examination. It is clear from a review of the Sequence Listing that the 16 sequences described therein are amino acid sequences and the claims have previously incorrectly described these sequences as nucleotide sequences. This error was pointed out the January 15, 2002 Office Action issued for this application, at which time Examiner Helmer requested correction of this error and stated that the claims were being interpreted to mean nucleic acids encoding SEQ ID NOs 2-10. Applicants apologize for not correcting this error at the time it was pointed out and wish to make this correction to the claims in the present response.

New claims 87 and 88 as presented herein are believed to be free of the 35 U.S.C. § 112, first paragraph and second paragraph issues raised by the Examiner regarding previously pending claims 60-77 and are merely re-written versions of these claims. In particular, these claims most closely parallel the subject matter of previously pending claims 60, 63, 66, 69, 72 and 75, which were not rejected in the present Office Action under 35 U.S.C. § 112, first paragraph. Furthermore, the language that was at issue in the rejection of claims 60-77 under 35 U.S.C. § 112, second paragraph, is not present in new claims 87 and 88. Further, it is stated in the January 15, 2002 Office Action that the polynucleotides encoding SEQ ID NOs 2-10 are free of the prior art. It is believed that no new matter is presented with these new claims, nor are any new issues raised regarding the subject matter of the new claims as compared with the subject matter of the previously pending claims. Therefore, applicants respectfully request the entry of these new claims and their allowance to issue.

## **VI. Rejoinder of new claims 89-90**

New claims 89 and 90 are added herein and support for the subject matter of these claims is found in the language of the previous claims, as set forth in applicants' prior response. Thus, no new matter is added by these claims.

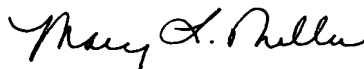
Applicants wish to remind the Examiner that, according to the rules of rejoinder as set forth in Section 821.04 of the MPEP, if allowable subject matter is found in the pending composition claims, then claims reciting methods directed to using the claimed compositions and having all of the limitations as set forth in the allowed claims are to be rejoined and examined on the merits in the same application. Thus, applicants request the opportunity to introduce new claims 89 and 90 for examination in this application that are directed to methods of making a transgenic plant having increased resistance to geminivirus infection, comprising the use of the compositions of claims 87 and 88.

For the foregoing reasons, applicants believe that all of the pending rejections have been adequately addressed and that the claims as presented herein are in condition for allowance. The Examiner is encouraged to contact the undersigned directly if such contact will expedite the examination and allowance of the pending claims.

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A check in the amount of \$55.00 is enclosed as the fee for a one month extension of time. This amount is believed to be correct; however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,



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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 3, 2003.

  
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Susan E. Freedman

Date of Signature: October 3, 2003